BRUHAT BANGALORE MAHANAGARA PALIKE

NAME OF WORK:Estimate for Improvements to roads and drains at Devappa layout and surrounding areas in ward no.11 in Kuvempunagar

								Estimation Cost.Rs	**9900000.00**
Sl No	**Description of Item**	**Unit**	**Measurement**				**Qty**	**Rate**	**Amount**
			No	**L**	**B**	**D**			
1	KSRRB 300-1. Earthwork excavation by manual means for roads, drains & similar works in ordinary soil excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specifications(P.No-143 &136 ,I No-19.1&17.4& 17.1) 5km lead= 57+2.0x1.28x5 =69.80								
	Culvert								
		Cum	1	6.20	2.10	1.10	14.32		
		Cum	1	4.00	2.10	1.10	9.24		
	Desilt for Drain								
	1st cross road(R H S)	Cum	1	120.7	0.45	0.45	24.44		
	2nd cross road	Cum	1	126.3	0.45	0.45	25.58		
	3rd Cross Road	Cum	1	131.1	0.45	0.45	26.55		
	Main road	cum	1	12.2	0.6	0.6	4.39		
	4th cross	Cum	1	132.6	0.6	0.6	47.74		
	Muneshwara Temple opposite road	Cum	1	115.3	0.6	0.65	44.97		
	Kalthuru Layout	Cum	1	47	0.45	0.45	9.52		
	3rd Cross Road	cum	2	52	0.6	0.6	37.44		
	cross road	Cum	1	45	0.5	0.65	14.63		
	Muniswamappa Layout	Cum	1	100	0.5	0.65	32.50		
	Somanna layout	Cum	2	136	0.45	0.45	55.08		
	For Flagging Coarce								
	1st cross road(R H S)	Cum	1	120.7	0.3	0.6	21.726		
	2nd cross road	Cum	1	126.3	0.3	0.6	22.734		
	3rd Cross Road	Cum	1	131.1	0.3	0.6	23.598		
	Main road	Cum	1	12.2	0.3	0.6	2.196		
	4th cross	Cum	1	132.6	0.3	0.6	23.868		
	Muneshwara Temple opposite road	Cum	1	115.3	0.3	0.6	20.754		
	Kalthuru Layout	Cum	1	47	0.3	0.6	8.46		
	3rd Cross Road	Cum	2	52	0.3	0.6	18.72		
	Somanna layout	Cum	2	136	0.3	0.6	48.96		
	L H S								
	Basic rate							130.00	
	Area weightage 6%							7.80	
	5Km lead & Lift= 57+(2*1.28*5)							69.80	
						TOTAL	**537.40**	**207.60**	**111564.40**
2	Removing and refixing stone slabs of drains and pointing in CM (1:3) (P.No.27-I.No.5.33)								
	1st cross road(R H S)	Sqm	1	120.7	1.35		162.95		
	2nd cross road	Sqm	1	126.3	1.35		170.51		
	3rd Cross Road	Sqm	1	131.1	1.35		177.51		
	Main Road	Sqm	1	12.2	1.80		21.96		
	4th cross	Sqm	1	132.6	1.8		238.68		
	Kalthuru Layout	Sqm	1	47	1.8		84.60		
	3rd Cross Road	Sqm	2	52	1.8		187.20		

Sl No	Description of Item	Unit	Measurement No	L	B	D	Qty	Rate	Amount
	Muneshwara Temple opposite road	Sqm	1	115.3	1.8		207.54		
	Somanna layout	Sqm	2	136	1.35		367.20		
							1609.48		
	30% missing Or dammage						482.84		
	Basic rate							105.00	
	Area weightage 6%							6.3	
						TOTAL	**1126.64**	**111.30**	**125394.59**
3	Providing granite slabs of selected quality roughly dressed havinf a size of 7.5cms thick and fixed in cement mortar (1:6) including fixing curing ete., complete.(P.No.27,I.No.5.31.1)								
	30% missing Or dammage Vide From I no 2						482.84		
	Basic rate							700.00	
	Area weightage 6%							42.00	
						TOTAL	**482.84**	**742.00**	**358270.25**
4	KSRB 4-1.3 : Providing and laying in position plain cement concrete of Mix 1:4:8 with OPC @ 180kgs, with 40mm and down size graded granite metal coarse aggregates @0.85cum and fine aggregates @ 0.57cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2								
	P C C For flagging coarce								
	1st cross road(R H S)	Cum	1	120.7	0.30	0.15	5.43		
	2nd cross road	Cum	1	126.3	0.30	0.15	5.68		
	3rd Cross Road	Cum	1	131.1	0.30	0.15	5.90		
	Main road	Cum	1	12.2	0.30	0.15	0.55		
	4th cross	Cum	1	132.6	0.30	0.15	5.97		
	Muneshwara Temple opposite road	Cum	1	115.3	0.30	0.15	5.19		
	Kalthuru Layout	Cum	1	47	0.30	0.15	2.12		
	3rd Cross Road	Cum	2	52	0.30	0.15	4.68		
	Somanna layout	Cum	2	136	0.30	0.15	12.24		
	Road P C C								
	Muneshwara temple road	Cum	1	71.00	3.30	0.15	35.17		
	Near Temple	Cum	1	97.00	3.43	0.15	49.83		
	Muneshwara Layout 2nd Cross	Cum	1	52.00	3.60	0.15	28.08		
	Muneshwara Layout 1st Cross	Cum	1	50.00	4.35	0.15	32.63		
	Basic rate							5102.00	
	Area weightage 6%							306.12	
						TOTAL	**193.43**	**5408.12**	**1046092.652**
5	KSRB 5-14: Providing and constructing load bearing wall with solid concrete blocks having block density not less than 1800kg/m3 having a minimum average compressive strength of 4.00 N/mm2 confirming to IS 2185 (Part 1):2005 and constructed with CM 1:4, as per IS 2572:2005 including cost of all materials labour charges, scaffolding, curing, hire charges of machineries etc., complete as per specifications. blocks of size 400x200x200mm KBS No.5.4 (P.No-27,I No-5.26.1)								
	For flagging Coarce								

Sl No	Description of Item	Unit	Measurement No	L	B	D	Qty	Rate	Amount
	1st cross road(R H S)	Sqm	2	120.7		0.6	144.84		
	2nd cross road	Sqm	2	126.3		0.6	151.56		
	3rd Cross Road	Sqm	2	131.1		0.6	157.32		
	Main road	Sqm	2	12.2		0.6	14.64		
	4th cross	Sqm	2	132.6		0.6	159.12		
	Muneshwara Temple opposite road	Sqm	2	115.3		0.6	138.36		
	Kalthuru Layout	Sqm	2	47		0.6	56.40		
	3rd Cross Road	Sqm	4	52		0.6	124.80		
	cross road	Sqm	2	45		0.4	36.00		
	Muniswamappa Layout	Sqm	4	100		0.4	160.00		
	Somanna layout	Sqm	4	136		0.6	326.40		
	Basic rate							962.00	
	Area weightage 6%							57.72	
							TOTAL	**1469.44**	**1019.72**	**1498417.357**
6	KSRB 4-1.6 ; Providing and laying in position **plain cement concrete of Mix 1:2:4** with OPC @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregtes @ 0.53cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No-13,I No-4.6)								
	1st cross road(R H S)	Cum	2	120.7	0.2	0.1	4.83		
	2nd cross road	Cum	2	126.3	0.2	0.1	5.05		
	3rd Cross Road	Cum	2	131.1	0.2	0.1	5.24		
	Main road	Cum	2	12.2	0.2	0.1	0.49		
	4th cross	Cum	2	132.6	0.2	0.1	5.30		
	Muneshwara Temple opposite road	Cum	2	115.3	0.2	0.1	4.61		
	Kalthuru Layout	Cum	2	47	0.2	0.1	1.88		
	3rd Cross Road	Cum	4	52	0.2	0.1	4.16		
	cross road	Cum	2	45	0.2	0.1	1.80		
	Muniswamappa Layout	Cum	4	100	0.2	0.1	8.00		
	Somanna layout	Cum	4	136	0.2	0.1	10.88		
	Basic rate							5422.00	
	Area weightage 6%							325.32	
							TOTAL	**52.25**	**5747.32**	**300285.98**
7	KSRB 4-1.2 : Providing and laying in position plain cement concrete of Mix 1:3:6 with OPC @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregates @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2								
	P C C for Culvert								
		Cum	1	6.20	2.00	0.15	1.86		
		Cum	1	4.00	2.00	0.15	1.20		
	Basic rate							5194.00	
	Area weightage 6%							311.64	
							TOTAL	**3.06**	**5505.64**	**16847.26**

Sl No	Description of Item	Unit	Measurement No	L	B	D	Qty	Rate	Amount
8	Providing laying plain/ reinforced cement concrete for side Drains Using M20 nominal mix Concrete with OPC at 300kgs.With 20mm and Down size granite metal coarse aggregate at 0.69cum and fine aggregate at 0.43cum Machne mixed, well compacted for wall and Bottom including centering shuttering,cost of materials,HOM of Machinery,Curing Etc.,Complete Excluding cost of Steel as per morth MORTH specification No. 1500, 1700, 2200. Including Cost of material, Labour, HOM complete as per Specification-WALL & Bottom thickness 15Cm(Item No 37.59.2 page no								
	Culvert								
	Bottom raft								
		cum	1	6.20	1.80	0.20	2.23		
		cum	1	4.00	1.80	0.20	1.44		
	Side wall								
		cum	2	6.20	0.20	0.75	1.86		
		cum	2	4.00	0.20	0.75	1.20		
	Basic rate							6670.00	
	Area weightage 6%							400.20	
							TOTAL	**6.73**	**7070.20**	**47596.59**
9	KSRB M2200-6 Providing T.M.T bars Fe 500 steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. MORTH Specification NO.1600&2200Specification No. Pg No.229 Item No.28.8.2								
	For Culvert	Cum					6.73		
		kg	Steel assumed 100kg/Cum of Concrete				673.20		
		Tonne					0.67		
	Basic rate							68233	
	Area weightage 6%							4093.98	
							TOTAL	**0.67**	**72326.98**	**48690.52**
10	Providing and Fixing pre cast covering Slab made out of CC 1:2:4 with 10cm thick and Finishing cutting ,including form work,curing,including cost of alll materials, labour,hire charges of machinery,loading,unloading,lead and lift,transportation etc ,copmplete. (Data Rate)								
	Drain Cover slab								
	1st cross road(R H S)	Sqm	1	120.7	0.75		90.53		
	2nd cross road	Sqm	1	126.3	0.75		94.73		
	3rd Cross Road	Sqm	1	131.1	0.75		98.33		
	Main road	Sqm	1	12.2	0.75		9.15		
	4th cross	Sqm	1	132.6	0.75		99.45		
	Muneshwara Temple opposite road	Sqm	1	115.3	0.75		86.48		
	Kalthuru Layout	Sqm	1	47	0.75		35.25		
	3rd Cross Road	Sqm	2	52	0.75		78.00		
	cross road	Sqm	1	45	0.75		33.75		
	Muniswamappa Layout	Sqm	2	100	0.9		178.60		
	Somanna layout	Sqm	2	136	0.9		244.80		
	Data rate							**2337.00**	
							TOTAL	**1048.75**	**2337.00**	**2450928.75**

Sl No	Description of Item	Unit	Measurement No	L	B	D	Qty	Rate	Amount
11	Providing and Fixing pre cast **covering Slab 250mm thick** made out of CC 1:2:4 and jelly 20mm Down size with steel reinforcement including form work,curing,including cost of alll materials, labour,hire charges of machinery, loading, unloading, lead and lift,transportation etc ,complete.As per Engineer incharge								
	Culvert cover slab	Sqm	1	6.2	1.8		11.16		
		Sqm	1	4.0	1.8		7.20		
	Data rate							**5418.00**	
						TOTAL	**18.36**	**5418.00**	**99474.48**
12	Providing and fixing **pre cast solid cement concrete kerb stones** made out of CC 1:2:4 with top and bottom width 114 and 165 mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting including formwork, curing, including cost of materials, labour charges of machinery, loading and unloading, lead and lift, transportation ete.,complete. As per the direction of Engineer incharge. (P.No.27, I.No.5.30 of PW, P&IWTD SR 2018-19)								
	Kerb Stone								
	1st cross road(R H S)	m	1	120.7			120.70		
	2nd cross road	m	1	126.3			126.30		
	3rd Cross Road	m	1	131.1			131.10		
	Main road	m	1	12.2			12.20		
	4th cross	m		132.6			132.60		
	Muneshwara Temple opposite road	m	1	115.3			115.30		
	Kalthuru Layout	m	1	47			47.00		
	3rd Cross Road	m	2	52			104.00		
	cross road	m	1	45			45.00		
	Muniswamappa Layout	m	2	100			200.00		
	Somanna layout	m	2	136			272.00		
						Sub Total	1306.20		
		Nos					2902.67		
	Basic rate							408.00	
	Area weightage 6%							24.48	
						TOTAL	**2902.67**	**432.48**	**1255345.28**
13	KSRRB 800-1. Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications. MORTH Chapter 8 (Page No.180. Iitem no.24.1 of KPWD S.R Bangalore Circle 2018-2019)								
	1st cross road(R H S)	Sqm	1	120.7		0.35	42.25		
	2nd cross road	Sqm	1	126.3		0.35	44.21		
	3rd Cross Road	Sqm	1	131.1		0.35	45.89		
	Main road	Sqm	1	12.2		0.35	4.27		
	4th cross	Sqm		132.6		0.35	46.41		
	Muneshwara Temple opposite road	Sqm	1	115.3		0.35	40.36		
	Kalthuru Layout	Sqm	1	47		0.35	16.45		
	3rd Cross Road	Sqm	2	52		0.35	36.40		
	cross road	Sqm	1	45		0.35	15.75		
	Muniswamappa Layout	Sqm	2	100		0.35	70.00		
	Somanna layout	Sqm	2	136		0.35	95.20		
	Basic rate							80.00	
	Area weightage 6%							4.80	

Sl No	Description of Item	Unit	Measurement No	L	B	D	Qty	Rate	Amount
						TOTAL	457.17	84.80	38768.02
14	KSRRB M300-14. Excavation for roadwork in all types of soil by mechanical means including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transportation with a lead of 1.00 km and complete as per specifications MORTH Specificatio MORTH Specification No.301Loading and unloading with 10km lead= (I No-19.14,P No-143)								
	Muneshwara temple road	Cum	1	71	3.30	0.15	35.15		
	Near Temple	Cum	1	97	3.4	0.15	49.83		
	Muneshwara Layout 2nd Cross	Cum	1	52.00	3.60	0.15	28.08		
	Muneshwara Layout 1st Cross	Cum	1	50.00	4.35	0.15	32.63		
	Basic rate							41.00	
	Area weightage 6%							2.46	
	5Km lead= (2*1.28*5)							12.80	
						TOTAL	145.67	56.26	8195.39
15	KSRRB M200-24. Dismantling of cement concrete pavement by mechanical means using pneumatic tools, breaking to pieces not exceeding 0.02 cum in volume and stock piling at designated locations and disposal of dismantled materials stacking serviceable and unserviceable materials seperately complete as per specifications. MORTH Specification No. 202(P.No.140- I.No.18.47) & Pg No.136, Item No.17.4,17.1 (5km lead = 57+2*1.28X5)								
	Muneshwara temple road	Cum	1	71.00	3.35	0.20	47.57		
	Near Temple	Cum	1	97	3.43	0.2	66.45		
	Muneshwara Layout 2nd Cross	Cum	1	52.00	3.60	0.20	37.44		
	Muneshwara Layout 1st Cross	Cum	1	50.00	4.35	0.20	43.50		
	Basic rate							899.00	
	Area weightage 6%							53.94	
	5Km lead & Lift= 57+(2*1.28*5)							69.80	
						TOTAL	194.24	1022.74	198657.02
16	Cement concrete pavement.Construction of un-reinforced plain cement concrete pavement, using a grade concrete M30 over a prepared base with OPC coarse aggregate @ 0.69cum fine aggregate @ 0.46cum,coarse and fine aggregate confirming to IS:383-2016,with superplastisiser @3lts confirming to IS9103-2008mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the form work as per drawing). Spreading the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints including groove cutting charges, joint filler, separation membrane, selant primer, joint sealant, admixtures as approved, curing compound, finishing to lines and grades, textured with texturing machine,and curing including cost of all materials,labour,hire chargedof machines,all lead and lift charges etc., complete as per specifications. - do with OPC at 360Kg per cum coarse aggregate @ 0.69cum and fine aggregate @ 0.46cum Pg No.176Item								
	Muneshwara temple road	Cum	1	71.00	3.35	0.15	35.68		
	Near Temple	Cum	1	97.00	3.40	0.15	49.47		
	Muneshwara Layout 2nd Cross	Cum	1	52.00	3.60	0.15	28.08		

Sl No	Description of Item	Unit	Measurement No	L	B	D	Qty	Rate	Amount
	Muneshwara Layout 1st Cross	Cum	1	50.00	4.35	0.15	32.63		
	Basic rate							4916.00	
	Area weightage 6%							294.96	
	TOTAL						**145.68**	**5210.96**	**759132.65**
								Grand Total	**8363661.17**
								KRIDL Charges 3+1=4%	**334546.45**
								GST Charges (12% of estimated cost)	**1003639.34**
								DPR & PMC Charges @ 2%	**198000.00**
								Miscellenious and rounding	**153.04**
								TOTAL AMOUNT	**9900000**
								RUPEES NINETY NINE LAKHS ONLY	

CERTIFICATE:

1) The work spot has been inspected and found to be necessary
2) The work spot comes under B.B.M.P
3) The provisions made in the estimate are necessary and minimum
4) The estimate is based on C.S.R of 2018-2019,Issue rates and Data Rates.

Assistant Engineer	Assistant Executive Engineer	Executive Engineer
Ward No. 11	Vidyaranyapuram Sub Divisic	Byatarayanapura Division

ADMINISTRATIVE APPROVAL

Accorded For Rs. 99.00 Lakhs only

Head of A/c. P3727, SC-SP/TSP

Div. Ref. No. 65/19-20 Date 24-10-19

AE 24/10 EE(BTP) 24/10

Technical Sanction

Accorded For Rs 99.00 lakhs only

Head of A/c P 3727

CER NO : 148 Dt: 28.10.2019

TA SE (YNK)

BRUHAT BANGALORE MAHANAGARA PALIKE

NAME OF WORK:- **Estimate for Improvements to roads and drains at Raghavendra colony and surrounding areas in ward no.11 in Kuvempunagar.**

								Estimation Cost.Rs	9900000.00
Sl No	Description of work	Unit	Mesurement No.	L	B	D	Qty	Rate	Amount
1	KSRRB 300-1. **Earthwork excavation by manual means for roads,** drains & similar works in ordinary soil excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specifications(P.No-143 &136 ,I No-19.1&17.4& 17.1) 5km lead= 57+2.0x1.28x5 =69.80								
	Drain Desilt								
	Sommanna layout								
	5th Main Road	Cum	1	140.00	0.60	0.60	50.40		
	4th Main Road	Cum	2	145.00	0.60	0.60	104.40		
	3rd Main Road	Cum	2	145.00	0.60	0.60	104.40		
	2nd Main Road	Cum	2	150.00	0.60	0.60	108.00		
	7th Cross Road	Cum	2	130.00	0.60	0.60	93.60		
	For Flagging Course								
	Sommanna layout								
	5th Main Road	Cum	1	140.00	0.30	0.60	25.20		
	4th Main Road	Cum	2	145.00	0.30	0.60	52.20		
	3rd Main Road	Cum	2	145.00	0.30	0.60	52.20		
	2nd Main Road	Cum	2	150.00	0.30	0.60	54.00		
	7th Cross Road	Cum	2	130.00	0.30	0.60	46.80		
	Culverts		4	6.00	2.00	1.20	57.60		
	Basic rate							130.00	
	Area weightage 6%							7.80	
	5Km lead & Lift= 57+(2*1.28*5)							69.80	
	Total						**748.80**	**207.60**	**155451.00**
2	Removing and refixing stone slabs of drains and pointing in CM (1:3) (P.No.27-I.No.5.33)								
	Drain (Sides & Bottom)	Width=Perimeter of Drain in U Shape							
	Sommanna layout								
	5th Main Road	Sqm	1	140.00	1.80		252.00		
	4th Main Road	Sqm	2	145.00	1.80		522.00		
	3rd Main Road	Sqm	2	145.00	1.80		522.00		
	2nd Main Road	Sqm	2	150.00	1.80		540.00		
	7th Cross Road	Sqm	2	130.00	1.80		468.00		
					Sub Total		**2304.00**		
	Consider 50% Missing or Damaged Slab						**1154.30**		
	Basic rate							105.00	
	Area weightage 6%							6.3	
	Total						**1149.70**	**111.30**	**127961.00**
3	Providing granite slabs of selected quality roughly dressed havinf a size of 7.5cms thick and fixed in cement mortar (1:6) including fixing curing ete., complete.(P.No.27,I.No.5.31.1)								
	Consider 30% Missing or Damaged Slab						**1154.30**		
	Basic rate							700.00	
	Area weightage 6%							42.00	
						Total	**1154.30**	**742.00**	**856494.00**

Sl No	Description of work	Unit	Mesurement No.	L	B	D	Qty	Rate	Amount
4	KSRB 4-1.3 : Providing and laying in position plain cement concrete of Mix 1:4:8 with OPC @ 180kgs, with 40mm and down size graded granite metal coarse aggregates @0.85cum and fine aggregates @ 0.57cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2								
	For Flagging Course								
	Sommanna layout								
	5th Main Road	Cum	1	140.00	0.30	0.15	6.30		
	4th Main Road	Cum	2	145.00	0.30	0.15	13.05		
	3rd Main Road	Cum	2	145.00	0.30	0.15	13.05		
	2nd Main Road	Cum	2	150.00	0.30	0.15	13.50		
	7th Cross Road	Cum	2	130.00	0.30	0.15	11.70		
	Basic rate							5102.00	
	Area weightage 6%							306.12	
						Total	**57.60**	**5408.12**	**311508.00**
5	KSRB 5-14: Providing and constructing load bearing wall with solid concrete blocks having block density not less than 1800kg/m3 having a minimum average compressive strength of 4.00 N/mm2 confirming to IS 2185 (Part 1):2005 and constructed with CM 1:4, as per IS 2572:2005 including cost of all materials labour charges, scaffolding, curing, hire charges of machineries etc., complete as per specifications. blocks of size 400x200x200mm KBS No.5.4 (P.No-27,I No-5.26.1)								
	For Flagging Course								
	5th Main Road	Sqm	2	140.00		0.80	224.00		
	4th Main Road	Sqm	4	145.00		0.80	464.00		
	3rd Main Road	Sqm	4	145.00		0.80	464.00		
	2nd Main Road	Sqm	4	150.00		0.60	360.00		
	7th Cross Road	Sqm	4	130.00		0.80	416.00		
	Basic rate							962.00	
	Area weightage 6%							57.72	
						Total	**1928.00**	**1019.72**	**1966020.00**
6	KSRB 4-1.6 ; Providing and laying in position **plain cement concrete of Mix 1:2:4** with OPC @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregtes @ 0.53cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No-13,I No-4.6)								
	For Flagging Course								
	Sommanna layout								
	5th Main Road	Cum	2	140.00	0.20	0.10	5.60		
	4th Main Road	Cum	4	145.00	0.20	0.10	11.60		
	3rd Main Road	Cum	4	145.00	0.20	0.10	11.60		
	2nd Main Road	Cum	4	150.00	0.20	0.10	12.00		
	7th Cross Road	Cum	4	130.00	0.20	0.10	10.40		
	Vent Concrete								
	Sommanna layout								
	5th Main Road	Cum	1	60.00	0.45	0.10	2.70		
	4th Main Road	Cum	2	55.00	0.45	0.10	4.95		
	3rd Main Road	Cum	2	60.00	0.45	0.10	5.40		
	2nd Main Road	Cum	2	54.00	0.45	0.10	4.86		
	7th Cross Road	Cum	2	55.00	0.45	0.10	4.95		
	Culverts								
	Coping	Cum	4	6.00	1.50	0.10	3.60		

Sl No	Description of work	Unit	Mesurement No.	L	B	D	Qty	Rate	Amount
	Ramp	Cum	2x4	6.00	1.00	0.15	7.20		
	Basic rate							5422.00	
	Area weightage 6%							325.32	
	Total						**84.86**	**5747.32**	**487718.00**
7	KSRB 4-1.2 : Providing and laying in position plain cement concrete of Mix 1:3:6 with OPC @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregates @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KRS 4.1.4.2								
	Culverts	Cum	4	6.00	1.80	0.15	6.48		
	Basic rate							5194.00	
	Area weightage 6%							311.64	
						Total	**6.48**	**5505.64**	**35677.00**
8	Providing laying plain/ reinforced cement concrete for side Drains Using M20 nominal mix Concrete with OPC at 300kgs.With 20mm and Down size granite metal coarse aggregate at 0.69cum and fine aggregate at 0.43cum Machne mixed, well compacted for wall and Bottom including centering shuttering,cost of materials,HOM of Machinery,Curing Etc.,Complete Excluding cost of Steel as per morth MORTH specification No. 1500, 1700, 2200. Including Cost of material, Labour, HOM complete as per Specification-WALL & Bottom thickness 15Cm(Item No 37.59.2 page no 271)								
	Culverts								
	Bottom Raft								
		Cum	4	6.00	1.50	0.20	7.20		
	Walls								
		Cum	8	6.00	0.23	0.90	9.94		
	Deck Slab								
			4	6.00	1.50	0.25	9.00		
	Basic rate							6670.00	
	Area weightage 6%							400.20	
	Total						**26.14**	**7070.20**	**184787.00**
9	KSRB M2200-6 Providing T.M.T bars Fe 500 steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. MORTH Specification NO.1600&2200Specification No. Pg No.229 Item No.28.8.2								
		Cum					26.14		
		kg	Steel assumed 90Kg/Cum of Concrete				2352.24		
		tonne					**2.35**		
	Basic rate							68233	
	Area weightage 6%							4093.98	
	Total						**2.35**	**72326.98**	**170130.00**
10	Providing and Fixing pre cast covering Slab made out of CC M20 with 10cm thick and Finishing cutting ,including form work,curing,including cost of alll materials, labour,hire charges of machinery, loading, unloading, lead and lift, transportation etc ,copmplete. (Data Rate)								
	Drain cover slab								

Sl No	Description of work	Unit	Mesurement No.	L	B	D	Qty	Rate	Amount
	Sommanna layout								
	5th Main Road	Sqm	1	140.00	0.90		126.00		
	4th Main Road	Sqm	2	145.00	0.90		261.00		
	3rd Main Road	Sqm	2	145.00	0.90		261.00		
	2nd Main Road	Sqm	2	150.00	0.90		270.00		
	7th Cross Road	Sqm	2	130.00	0.90		234.00		
	Missing Slab	Sqm	1	58.00	0.90		52.20		
	Data rate							**2337.00**	
	Total						**1204.20**	**2337.00**	**2814215.00**
11	Providing and fixing **pre cast solid cement concrete kerb stones** made out of CC 1:2:4 with top and bottom width 114 and 165 mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting including formwork, curing, including cost of materials, labour charges of machinery, loading and unloading, lead and lift, transportation ete.,complete. As per the direction of Engineer incharge. (P.No.27, I.No.5.30 of PW, P&IWTD SR 2018-19)								
	Sommanna layout								
	5th Main Road	**Nos**	1	140.00		/0.45	311		
	4th Main Road	**Nos**	2	145.00		/0.45	644		
	3rd Main Road	**Nos**	2	145.00		/0.45	644		
	2nd Main Road	**Nos**	2	150.00		/0.45	667		
	7th Cross Road	**Nos**	2	130.00		/0.45	578		
	Basic rate							408.00	
	Area weightage 6%							24.48	
	Total						**2844**	**432.48**	**1230165.00**
12	KSRRB 800-1. **Painting two coats** after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications. MORTH Chapter 8 (Page No.180. Iitem no.24.1 of KPWD S.R Bangalore Circle 2018-2019)								
	Sommanna layout								
	5th Main Road	**Sqm**	1	140.00		0.45	63.00		
	4th Main Road	**Sqm**	2	145.00		0.45	130.50		
	3rd Main Road	**Sqm**	2	145.00		0.45	130.50		
	2nd Main Road	**Sqm**	2	150.00		0.45	135.00		
	7th Cross Road	Sqm	2	130.00		0.45	117.00		
	Basic rate							80.00	
	Area weightage 6%							4.80	
	Total						**576.00**	**84.80**	**48845.00**
								Grand Total	**8388971.00**
								KRIDL Charges 3+1=4%	**335559.00**
								GST Charges (12% of estimated cost)	**1006677.00**
								DPR & PMC Report @ 2%	**167779.00**
								Miscellenious and rounding	**1014.00**
								Total Amount	**9900000.00**
								RUPEES NINETY NINE LAKHS ONLY	

ADMINISTRATIVE APPROVAL
Accorded For Rs. 99.00 lakhs only
Head of A/c P3727, SC-SP/TSP
Div. Ref. No. 67/19-20 Date 24-10-19

CERTIFICATE:

1) The work spot has been inspected and found to be necessary
2) The work spot comes under B.B.M.P
3) The provisions made in the estimate are necessary and minimum
4) The estimate is based on C.S.R of 2018-2019,Issue rates and Data Rates.

Technical Sanction
Accorded For Rs 99 lakhs only
Head of A/C P 3727
CER NO :149 Dt:28.10.2019

TA CE (YNK)

Assistant Engineer
Ward No. 11

Assistant Executive Engineer
Vidyaranyapuram Sub Division

Executive Engineer
Byatarayanapura Division

BRUHAT BANGALORE MAHANAGARA PALIKE

NAME OF WORK:- Improvements to roads and drains to Vinayakanagar and surrounding areas in ward no.11 in Kuvempunagar

								Estimation Cost.Rs	**9900000.00**
Sl No	**Description of work**		**Mesurement**				**Qty**	**Rate**	**Amount**
		Unit	**No.**	**L**	**B**	**D**			
1	KSRRB 300-1. **Earthwork excavation by manual means for roads,** drains & similar works in ordinary soil excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specifications(P.No-143 &136 ,I No-19.1&17.4& 17.1) 5km lead= 57+2.0x1.28x5 =69.80								
	New Drain								
	Sai Garden								
	Main Road	Cum	2	63.60	1.10	1.05	146.92		
	Prakruthi Layout								
	Main Road	Cum	2	178.60	1.10	1.00	392.92		
	1st Cross Road	Cum	2	52.90	1.10	1.00	116.38		
	Varadharaj Nagar								
	5th Cross Road	Cum	1	21.00	1.00	1.00	21.00		
	Main Road	Cum	1	19.60	1.10	1.00	21.56		
	Culvert								
	Sai Garden	Cum	1	6.60	1.7	1.05	11.78		
	Prakruthi Layout								
		Cum	1	7.70	1.70	1.05	13.74		
		Cum	1	8.60	1.70	1.05	15.35		
		Cum	1	7.70	1.70	1.05	13.74		
	Basic rate							130.00	
	Area weightage 6%							7.80	
	5Km lead & Lift= 57+(2*1.28*5)							69.80	
	Total						**753.40**	**207.60**	**156406.00**
2	KSRB 4-1.2 : Providing and laying in position plain cement concrete of Mix 1:3:6 with OPC @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregates @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2								
	New Drain								
	Sai Garden								
	Main Road	Cum	2	63.60	1.10	0.15	20.99		
	Prakruthi Layout								
	Main Road	Cum	2	178.60	1.10	0.15	58.94		
	1st Cross Road	Cum	2	52.90	1.10	0.15	17.46		
	Varadharaj Nagar								
	5th Cross Road	Cum	1	21.00	1.00	0.15	3.15		
	Main Road	Cum	1	19.60	1.10	0.15	3.23		
	Culvert								
	Sai Garden	Cum	1	6.60	1.70	0.15	1.68		
	Prakruthi Layout								
		Cum	1	7.70	1.70	0.15	1.96		
		Cum	1	8.60	1.70	0.15	2.19		
		Cum	1	7.70	1.70	0.15	1.96		
	Basic rate							5194.00	
	Area weightage 6%							311.64	
						Total	**111.57**	**5505.64**	**614265.00**

	Description of work	Unit	Mesurement No.	L	B	D	Qty	Rate	Amount
3	Providing laying plain/ reinforced cement concrete for side Drains Using M20 nominal mix Concrete with OPC at 300kgs.With 20mm and Down size granite metal coarse aggregate at 0.69cum and fine aggregate at 0.43cum Machne mixed, well compacted for wall and Bottom including centering shuttering,cost of materials,HOM of Machinery,Curing Etc.,Complete Excluding cost of Steel as per morth MORTH specification No. 1500, 1700, 2200. Including Cost of material, Labour, HOM complete as per Specification-WALL & Bottom thickness 15Cm(Item No 37.59.2 page no 271)								
	Bottom Raft								
	Sai Garden								
	Main Road	Cum	2	63.60	0.90	0.15	17.17		
	Prakruthi Layout								
	Main Road	Cum	2	178.60	0.90	0.15	48.22		
	1st Cross Road	Cum	2	52.90	0.90	0.15	14.28		
	Varadharaj Nagar								
	5th Cross Road	Cum	1	21.00	0.75	0.15	2.36		
	Main Road	Cum	1	19.60	0.90	0.15	2.65		
	Culvert								
	Sai Garden	Cum	1	6.60	1.50	0.20	1.98		
	Prakruthi Layout								
		Cum	1	7.70	1.50	0.20	2.31		
		Cum	1	8.60	1.50	0.20	2.58		
		Cum	1	7.70	1.50	0.20	2.31		
	Walls								
	Sai Garden								
	Main Road	Cum	4	63.60	0.15	0.70	26.71		
	Prakruthi Layout								
	Main Road	Cum	4	178.60	0.15	0.60	64.30		
	1st Cross Road	Cum	4	52.90	0.15	0.60	19.04		
	Varadharaj Nagar								
	5th Cross Road	Cum	2	21.00	0.15	0.65	4.10		
	Main Road	Cum	2	19.60	0.15	0.65	3.82		
	Culvert								
	Sai Garden	Cum	2	6.60	0.20	0.60	1.58		
	Prakruthi Layout								
		Cum	2	7.70	0.20	0.65	2.00		
		Cum	2	8.60	0.20	0.65	2.24		
		Cum	2	7.70	0.20	0.65	2.00		
	Basic rate							6670.00	
	Area weightage 6%							400.20	
	Total						**219.66**	**7070.20**	**1553030.00**
4	KSRB M2200-6 Providing T.M.T bars Fe 500 steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. MORTH Specification NO.1600&2200Specification No. Pg No.229 Item No.28.8.2								
	For Drain	Cum					202.65		
		kg	Steel assumed 70Kg/Cum of Concrete				14185.82		
		tonne					**14.19**		
	For Culvert	Cum					17.00		
		kg	Steel assumed 100Kg/Cum of Concrete				1700.40		
		tonne					**1.70**		
	Basic rate							68233	
	Area weightage 6%							4093.98	
	Total						**15.89**	**72326.98**	**1149002.00**

	Description of work	Unit	Mesurement No.	L	B	D	Qty	Rate	Amount
5	Providing and Fixing pre cast covering Slab made out of CC 1:2:4 with 10cm thick and Finishing cutting ,including form work,curing,including cost of alll materials, labour,hire charges of machinery,loading,unloading,lead and lift,transportation etc ,copmplete. (Data Rate)								
	Drain cover slab								
	Sai Garden								
	Main Road	Sqm	2	94.70	0.90		170.46		
	Prakruthi Layout	Sqm							
	Main Road	Sqm	2	178.60	0.90		321.48		
	1st Cross Road	Sqm	2	52.90	0.90		95.22		
	Varadharaj Nagar								
	5th Cross Road	Sqm	1	21.00	0.75		15.75		
	Main Road	Sqm	1	19.60	0.90		17.64		
			Sub Total				620.55		
	Deduct BS Slab 10% in *Front of House*						65.47		
	Data rate							**2337.00**	
	Total						**555.08**	**2337.00**	**1297227.00**
6	Providing and Fixing pre cast **covering Slab 250mm thick** made out of CC 1:2:4 and jelly 20mm Down size with steel reinforcement including form work,curing,including cost of alll materials, labour,hire charges of machinery, loading, unloading, lead and lift,transportation etc ,complete.As per Engineer incharge								
	Culvert cover Slab								
	Sai Garden	Sqm	1	6.60	1.50		9.90		
	Prakruthi Layout								
		Sqm	1	7.70	1.50		11.55		
		Sqm	1	8.60	1.50		12.90		
		Sqm	1	7.70	1.50		11.55		
	Data rate							**5418.00**	
	Total						**45.90**	**5418.00**	**248687.00**
7	Providing and fixing **pre cast solid cement concrete kerb stones** made out of CC 1:2:4 with top and bottom width 114 and 165 mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting including formwork, curing, including cost of materials, labour charges of machinery, loading and unloading, lead and lift, transportation ete.,complete. As per the direction of Engineer incharge. (P.No.27, I.No.5.30 of PW, P&IWTD SR 2018-19)								
	Sai Garden								
	Main Road	**Nos**	2	63.60		/0.45	282.67		
	Prakruthi Layout								
	Main Road	**Nos**	2	178.60		/0.45	793.78		
	1st Cross Road	**Nos**	2	52.90		/0.45	235.11		
	Basic rate							408.00	
	Area weightage 6%							24.48	
	Total						**1312.00**	**432.48**	**567414.00**
8	KSRRB 800-1. **Painting two coats** after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications. MORTH Chapter 8 (Page No.180. Iitem no.24.1 of KPWD S.R Bangalore Circle 2018-2019)								
	Sai Garden								
	Main Road	**Sqm**	2	63.60		0.35	44.52		
	Prakruthi Layout								
	Main Road	**Sqm**	2	178.60		0.35	125.02		
	1st Cross Road	**Sqm**	2	52.90		0.35	37.03		
	Basic rate							80.00	
	Area weightage 6%							4.80	
	Total						**206.57**	**84.80**	**17518.00**

	Description of work	Unit	Mesurement No.	L	B	D	Qty	Rate	Amount
9	KSRRB M200-24. Dismantling of cement concrete pavement by mechanical means using pneumatic tools, breaking to pieces not exceeding 0.02 cum in volume and stock piling at designated locations and disposal of dismantled materials stacking serviceable and unserviceable materials seperately complete as per specifications. MORTH Specification No. 202(P.No.140- I.No.18.47) & Pg No.136, Item No.17.4,17.1 (5km lead = 57+2*1.28X5)								
	Vinayak Nagar								
	Bhairaveshwara Swammy Floor Mill	Cum	1	142.10	3.50	0.20	99.47		
	Varadharaj Nagar								
	5th Cross Road	Cum	1	98.60	3.70	0.20	72.96		
	3rd Cross Road	Cum	1	83	3.45	0.2	56.36		
	Deduction								
	Ugd Chamber	Cum	-11	0.44		0.15	-0.73		
			Area of circle=(3.14X.75²)/4=0.44						
		Cum	-1	2.00	1.50	0.15	-0.45		
		Cum	-1	1.70	0.80	0.15	-0.20		
	Basic rate							899.00	
	Area weightage 6%							53.94	
	5Km lead & Lift= 57+(2*1.28*5)							69.80	
	Total						**227.41**	**1022.74**	**232579.00**
10	KSRRB 300-50. Scarifying bituminous course 50mm to 75mm thick along with premix carpet / surface dressing by road roller attached with scarifier without disturbing the base and stacking the debris including cost of all labour charges, HOM of machineries complete as per specifications. MORTH / Chapter 3(P.No.146, I.No.19.56)								
	Varadharaj Nagar								
	7th Cross Road	Sqm	1	110.90	3.90		432.51		
	Deduction								
	Ugd Chamber	Sqm	-3	0.44			-1.32		
			Area of circle=(3.14X.75²)/4=0.44						
	Basic rate							39.00	
	Area weightage 6%							2.34	
	Total						**431.19**	**41.34**	**17826.00**
11	KSRRB M300-14. **Excavation for roadwork in all types of soil** by mechanical means including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transportation with a lead of 1.00 km and complete as per specifications MORTH Specificatio MORTH Specification No.301Loading and unloading with 10km lead= (I No-19.14,P No-143)								
	Vinayak Nagar								
	Bhairaveshwara Swammy Floor Mill	Cum	1	142.10	3.50	0.10	49.74		
	Varadharaj Nagar								
	5th Cross Road	Cum	1	98.60	3.7	0.10	36.48		
	7th Cross Road	Cum	1	110.90	3.9	0.10	43.25		
	3rd Cross Road	Cum	1	82.5	3.45	0.1	28.46		
	Deduction								
	Ugd Chamber	Cum	-11.00	0.44		0.10	-0.49		
			Area of circle=(3.14X.75²)/4=0.44						
		Cum	-1.00	2.00	1.50	0.10	-0.30		

	Description of work	Unit	Mesurement No.	L	B	D	Qty	Rate	Amount
		Cum	-1.00	1.70	0.80	0.10	-0.14		
	Basic rate							41.00	
	Area weightage 6%							2.46	
	5Km lead= (2*1.28*5)							12.80	
	Total						**157.01**	**56.26**	**8834.00**
12	KSRB 4-1.3 : Providing and laying in position plain cement concrete of Mix 1:4:8 with OPC @ 180kgs, with 40mm and down size graded granite metal coarse aggregates @0.85cum and fine aggregates @ 0.57cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2								
	Vinayak Nagar								
	Bhairaveshwara Swammy Floor Mill	Cum	1	142.10	3.50	0.15	74.60		
	Varadharaj Nagar								
	5th Cross Road	Cum	1	98.60	3.70	0.15	54.72		
	7th Cross Road	Cum	1	110.90	3.90	0.15	64.88		
	3rd Cross Road	Cum	1	82.50	3.45	0.15	42.69		
	Deduction								
	Ugd Chamber	Cum	-11	0.44		0.15	-0.73		
			Area of circle=(3.14X.75²)/4=0.44						
		Cum	-1	2.00	1.50	0.15	-0.45		
		Cum	-1	1.70	0.80	0.15	-0.20		
	Basic rate							5102.00	
	Area weightage 6%							306.12	
							Total	**235.51**	**5408.12**	**1273684.00**
13	Cement concrete pavement.Construction of un-reinforced plain cement concrete pavement, using a grade concrete M30 over a prepared base with OPC coarse aggregate @ 0.69cum fine aggregate @ 0.46cum,coarse and fine aggregate confirming to IS:383-2016,with superplastisiser @3lts confirming to IS9103-2008mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the form work as per drawing). Spreading the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints including groove cutting charges, joint filler, separation membrane, selant primer, joint sealant, admixtures as approved, curing compound, finishing to lines and grades, textured with texturing machine,and curing including cost of all materials,labour,hire chargedof machines,all lead and lift charges etc., complete as per specifications. - do with OPC at 360Kg per cum coarse aggregate @ 0.69cum and fine aggregate @ 0.46cum Pg No.176Item No.22.6.1								
	Vinayak Nagar								
	Bhairaveshwara Swammy Floor Mill	Cum	1	142.10	3.50	0.15	74.60		
	Varadharaj Nagar								
	5th Cross Road	Cum	1	98.60	3.70	0.15	54.72		
	7th Cross Road	Cum	1	110.90	3.90	0.15	64.88		
	3rd Cross Road	Cum	1	82.50	3.45	0.15	42.69		
	Deduction								
	Ugd Chamber	Cum	-11	0.44		0.15	-0.73		
			Area of circle=(3.14X.75²)/4=0.44						
		Cum	-1	2.00	1.5	0.15	-0.45		

	Description of work	Unit	Mesurement No.	L	B	D	Qty	Rate	Amount
		Cum	-1	1.70	0.80	0.15	-0.20		
	Basic rate							4916.00	
	Area weightage 6%							294.96	
	Total						**235.51**	**5210.96**	**1227250.00**
								Grand Total	**8363722.00**
								GST Charges (12% of estimated cost)	**1003647.00**
								For 3% KRIDL Charges	**334549.00**
								DPR Charges (1% of estimated cost)	**99000.00**
								Project management And Consultancy Charges(1% of estimated cost)	**99000.00**
								Miscellenious and rounding	**82.00**
								Total Amount	**9900000.00**
									RUPEES NINETY NINE LAKHS ONLY

CERTIFICATE:

1) The work spot has been inspected and found to be necessary
2) The work spot comes under B.B.M.P
3) The provisions made in the estimate are necessary and minimum
4) The estimate is based on C.S.R of 2018-2019,Issue rates and Data Rates.

Assistant Engineer

Assistant Executive Engineer

ASSISTANT EXECUTIVE ENGINEER
Vidyaranyapura Sub-Division
Bruhath Bengaluru Mahanagara Palike

Executive Engineer

ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ವಿದ್ಯಾರಣ್ಯಪುರ ವಿಭಾಗ
ಬೃ.ಬೆ.ಮ.ಪಾ., ಬೆಂಗಳೂರು

ADMINISTRATIVE APPROVAL

Accorded For Rs. 99.00 Lakhs, Ninety Nine Lakhs only

Head of A/c. 3727, SC-SP/TSP.

Div. Ref. No. 64/19-20 Date. 24/10/19

AE 24/10

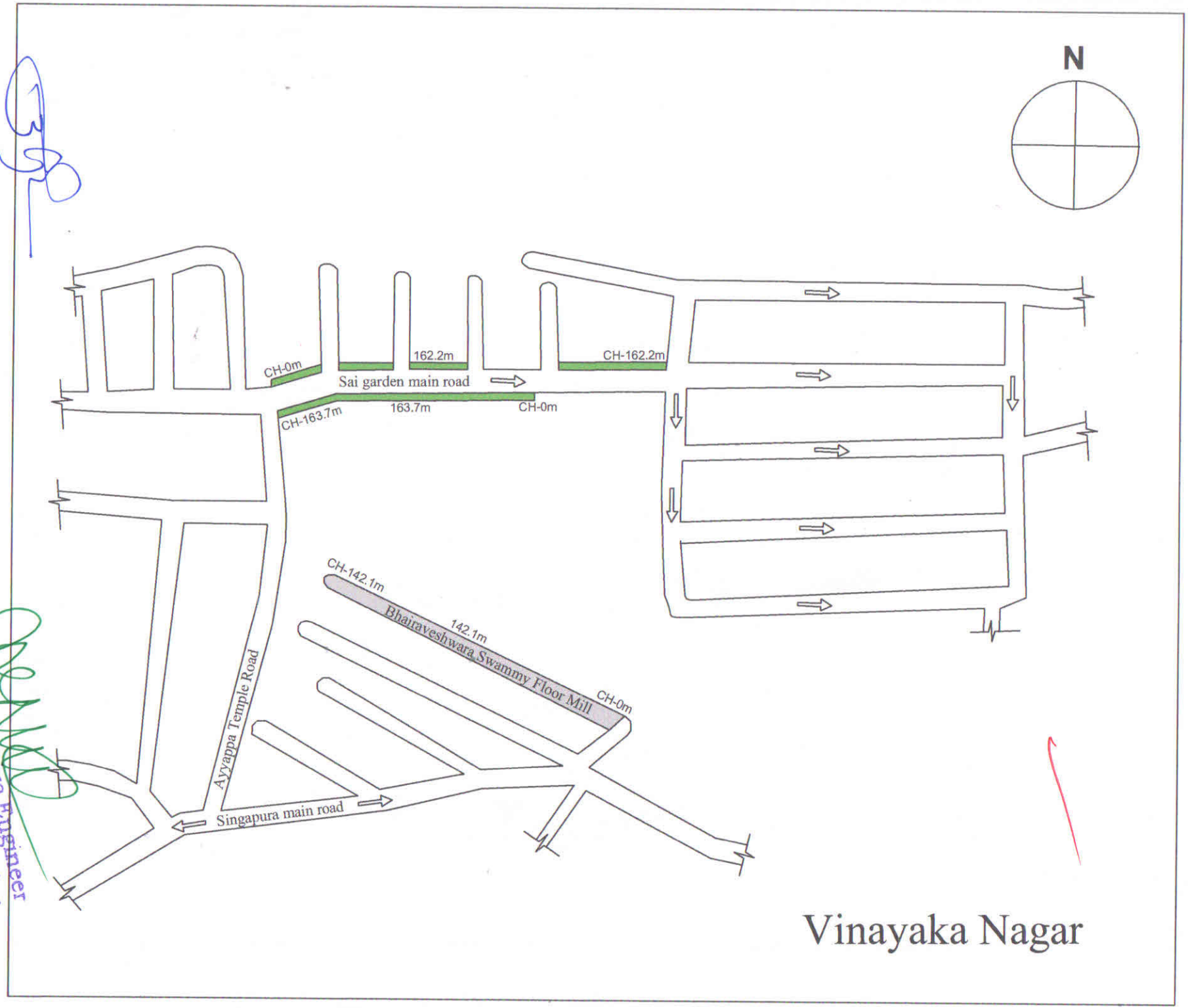
EE(BTP) 24/10

Technical Sanction

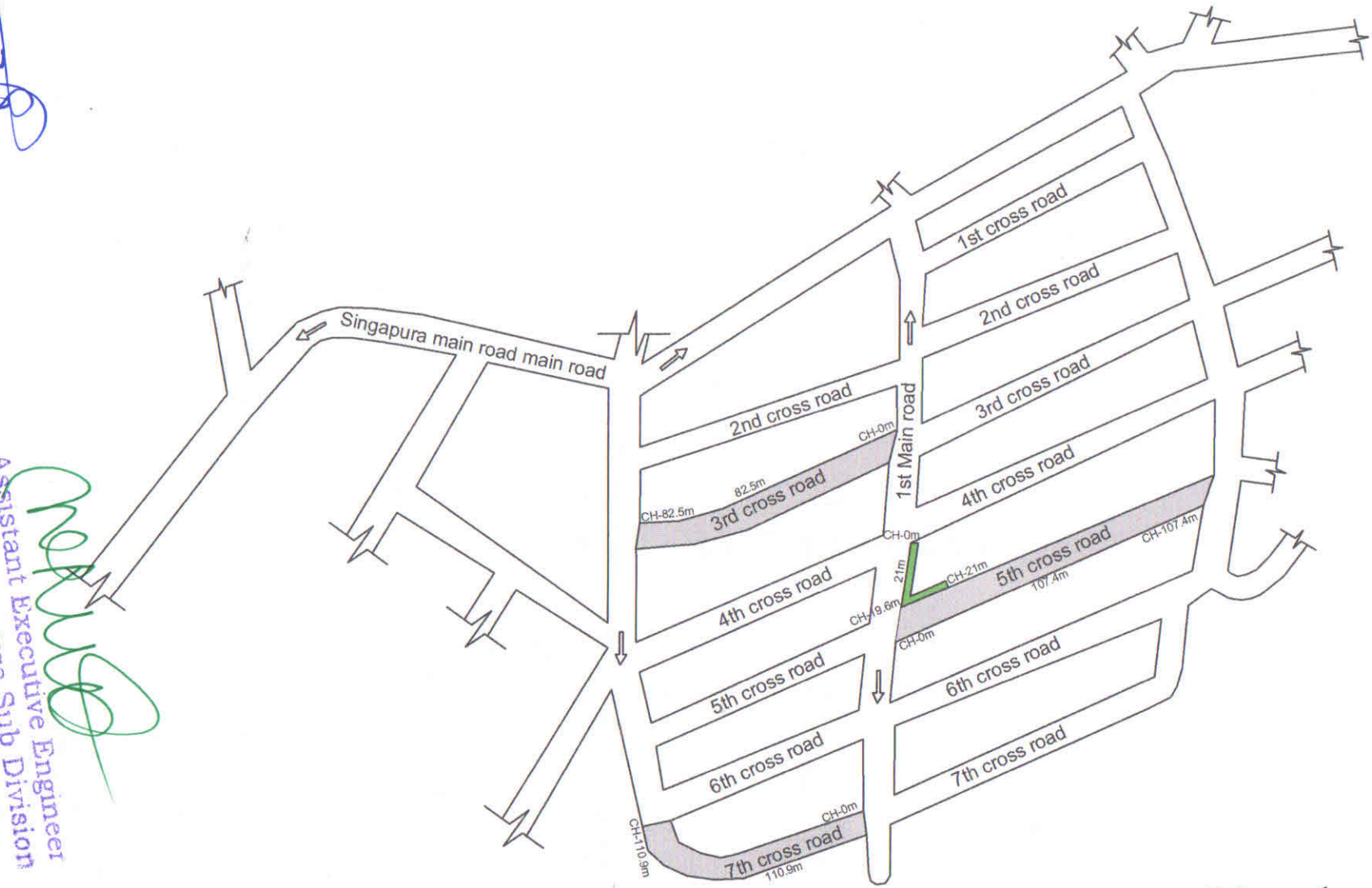
Accorded For 99.00 Ninety Nine Lakhs

Head of A/C. 3727

CER NO : 150 Dt: 28-10-19



Assistant Executive Engineer
Vidyaranyapura Sub Division
BBMP, Bangalore-97

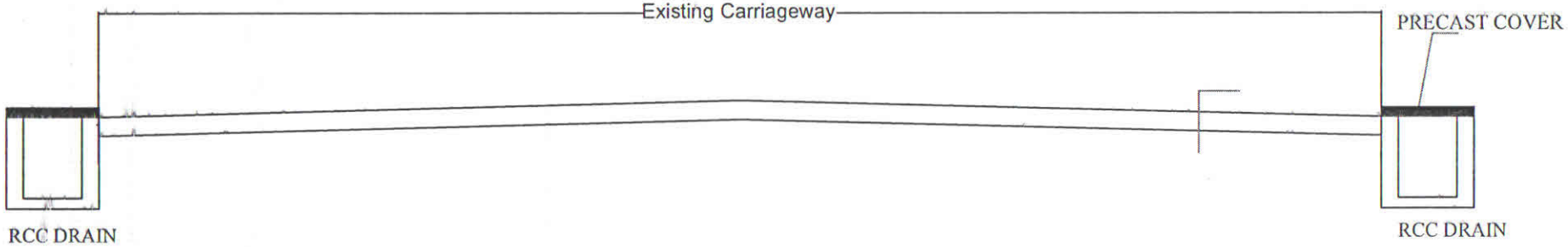


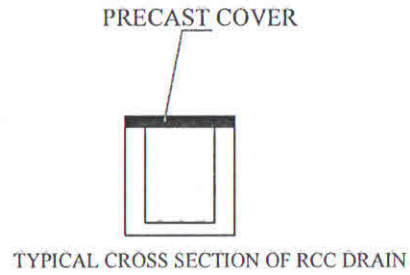
Varadaraj nagar

Assistant Executive Engineer
Vidyaranyapura Sub Division
BBMP, Bangalore - 97

Prakruthi Layout

Assistant Executive Engineer
Vidyaranyapura Sub Division
BBMP, Bangalore - 97





TYPICAL CROSS SECTION OF RCC DRAIN

Assistant Executive Engineer
Vidyaranyapura Sub Division
BBMP, Bangalore - 97

BRUHAT BANGALORE MAHANAGARA PALIKE

NAME OF WORK:- Improvements to roads and drains at kuvempunagara 1st stage mariyamma temple and surrounding areas in ward no.11 in Kuvempunagar

								Estimation Cost.Rs	9900000.00
Sl No	Description of work	Unit	Mesurement				Qty	Rate	Amount
			No.	L	B	D			
1	KSRRB 300-1. **Earthwork excavation by manual means for roads,** drains & similar works in ordinary soil excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specifications(P.No-143 &136 ,I No-19.1&17.4& 17.1) 5km lead= 57+2.0x1.28x5 =69.80								
	New Drain								
	Naidu Layout								
	Naidu Layout Main Road	Cum	2	79.20	1.10	1.05	182.95		
	Drain Desilt								
	Naidu layout								
	1st Cross Road	Cum	2	27.70	0.45	0.45	11.22		
	1st Cross Road	Cum	2	65.90	0.45	0.45	26.69		
	Cross Road	Cum	2	26.10	0.45	0.45	10.57		
	1stA Cross Road	Cum	2	29.70	0.45	0.45	12.03		
	2nd Cross Road	Cum	2	43.60	0.45	0.45	17.66		
	3rd Cross Road	Cum	2	44.90	0.45	0.45	18.18		
	3rd A Cross Road	Cum	2	49.90	0.45	0.45	20.21		
	Cross Road	Cum	2	44.50	0.90	0.75	60.08		
	For Flagging Course								
	Naidu layout								
	1st Cross Road	Cum	2	27.70	0.30	0.50	8.31		
	1st Cross Road	Cum	2	65.90	0.30	0.50	19.77		
	Cross Road	Cum	2	26.10	0.30	0.50	7.83		
	1stA Cross Road	Cum	2	29.70	0.30	0.50	8.91		
	2nd Cross Road	Cum	2	43.60	0.30	0.50	13.08		
	3rd Cross Road	Cum	2	44.90	0.30	0.50	13.47		
	3rd A Cross Road	Cum	2	49.90	0.30	0.50	14.97		
	Basic rate							130.00	
	Area weightage 6%							7.80	
	5Km lead & Lift= 57+(2*1.28*5)							69.80	
	Total						**445.93**	**207.60**	**92575.00**
2	Removing and refixing stone slabs of drains and pointing in CM (1:3) (P.No.27-I.No.5.33)								
	1st Cross Road	Sqm	2	27.70	1.35		74.79		
	1st Cross Road	Sqm	2	65.90	1.35		177.93		
	Cross Road	Sqm	2	26.10	1.35		70.47		
	1stA Cross Road	Sqm	2	29.70	1.35		80.19		
	2nd Cross Road	Sqm	2	43.60	1.35		117.72		

Sl No	Description of work	Unit	Mesurement				Qty	Rate	Amount
			No.	L	B	D			
	3rd Cross Road	Sqm	2	44.90	1.35		121.23		
	3rd A Cross Road	Sqm	2	49.90	1.35		134.73		
					Sub Total		**777.06**		
	Consider 30% Missing or Damaged Slab						**233.12**		
	Basic rate							105.00	
	Area weightage 6%							6.3	
	Total						**543.94**	**111.30**	**60541.00**
3	Providing granite slabs of selected quality roughly dressed havinf a size of 7.5cms thick and fixed in cement mortar (1:6) including fixing curing ete., complete.(P.No.27,I.No.5.31.1)								
	Qty Vide From It no 02 Consider 30% Missing or Damaged Slab	Sqm					**233.12**		
	Basic rate							700.00	
	Area weightage 6%							42.00	
	Total						**233.12**	**742.00**	**172974.00**
4	KSRB 4-1.3 : Providing and laying in position plain cement concrete of Mix 1:4:8 with OPC @ 180kgs, with 40mm and down size graded granite metal coarse aggregates @0.85cum and fine aggregates @ 0.57cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2								
	For Flagging Course								
	Naidu layout								
	1st Cross Road	Cum	2	27.70	0.30	0.15	2.49		
	1st Cross Road	Cum	2	65.90	0.30	0.15	5.93		
	Cross Road	Cum	2	26.10	0.30	0.15	2.35		
	1stA Cross Road	Cum	2	29.70	0.30	0.15	2.67		
	2nd Cross Road	Cum	2	43.60	0.30	0.15	3.92		
	3rd Cross Road	Cum	2	44.90	0.30	0.15	4.04		
	3rd A Cross Road	Cum	2	49.90	0.30	0.15	4.49		
	Cross Road	Cum	2	44.50	0.90	0.15	12.02		
	For CC Road								
	Naidu Layout								
	Cross Road	Cum	1	44.60	5.31	0.15	35.52		
	Kuvempu nagar 1st Stage								
	Cross Road	Cum	1	31.00	3.60	0.15	16.74		
	Near Ganesh Temple Cross Road	Cum	1	57.20	2.50	0.15	21.45		
	2nd Stage Kuvempu Nagar								
	4th Cross Road	Cum	1	80.30	4.30	0.15	51.79		

Sl No	Description of work	Unit	Mesurement				Qty	Rate	Amount
			No.	L	B	D			
	2nd Cross Road	Cum	1	75.40	4.00	0.15	45.24		
	Cross Road	Cum	1	36.20	3.40	0.15	18.46		
	Govt School Road	Cum	1	98.70	4.00	0.15	59.22		
	1st Cross Road	Cum	1	168.00	3.89	0.15	98.03		
	Basic rate							5102.00	
	Area weightage 6%							306.12	
						Total	**384.37**	**5408.12**	**2078707.00**
5	KSRB 5-14: Providing and constructing load bearing wall with solid concrete blocks having block density not less than 1800kg/m3 having a minimum average compressive strength of 4.00 N/mm2 confirming to IS 2185 (Part 1):2005 and constructed with CM 1:4, as per IS 2572:2005 including cost of all materials labour charges, scaffolding, curing, hire charges of machineries etc., complete as per specifications. blocks of size 400x200x200mm KBS No.5.4 (P.No-27,I No-5.26.1)								
	For Flagging Course								
	Naidu layout								
	1st Cross Road	Sqm	4	27.70		0.60	66.48		
	1st Cross Road	Sqm	4	65.90		0.60	158.16		
	Cross Road	Sqm	4	26.10		0.60	62.64		
	1stA Cross Road	Sqm	4	29.70		0.40	47.52		
	2nd Cross Road	Sqm	4	43.60		0.20	34.88		
	3rd Cross Road	Sqm	4	44.90		0.20	35.92		
	3rd A Cross Road	Sqm	4	49.90		0.40	79.84		
	Cross Road	Sqm	4	44.50		0.20	35.60		
					Sub Total		**521.04**		
	Add 40% for low lying area						**208.42**		
	Basic rate							962.00	
	Area weightage 6%							57.72	
						Total	**729.46**	**1019.72**	**743841.00**
6	KSRB 4-1.6 ; Providing and laying in position **plain cement concrete of Mix 1:2:4** with OPC @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregtes @ 0.53cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No-13,I No-4.6)								
	For Flagging Course								
	Naidu layout								
	1st Cross Road	Cum	4	27.70	0.20	0.10	2.22		
	1st Cross Road	Cum	4	65.90	0.20	0.10	5.27		
	Cross Road	Cum	4	26.10	0.20	0.10	2.09		
	1stA Cross Road	Cum	4	29.70	0.20	0.10	2.38		
	2nd Cross Road	Cum	4	43.60	0.20	0.10	3.49		
	3rd Cross Road	Cum	4	44.90	0.20	0.10	3.59		
	3rd A Cross Road	Cum	4	49.90	0.20	0.10	3.99		
	Cross Road	Cum	4	44.50	0.20	0.10	3.56		
	Basic rate							5422.00	
	Area weightage 6%							325.32	
	Total						**26.58**	**5747.32**	**152787.00**

Sl No	Description of work	Unit	Mesurement				Qty	Rate	Amount
			No.	L	B	D			
7	KSRB 4-1.2 : Providing and laying in position plain cement concrete of Mix 1:3:6 with OPC @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregates @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2								
	New Drain								
	Naidu Layout								
	Naidu Layout Main Road	Cum	2	79.20	1.10	0.15	26.14		
	Basic rate							5194.00	
	Area weightage 6%							311.64	
						Total	**26.14**	**5505.64**	**143896.00**
8	Providing laying plain/ reinforced cement concrete for side Drains Using M20 nominal mix Concrete with OPC at 300kgs.With 20mm and Down size granite metal coarse aggregate at 0.69cum and fine aggregate at 0.43cum Machne mixed, well compacted for wall and Bottom including centering shuttering,cost of materials,HOM of Machinery,Curing Etc.,Complete Excluding cost of Steel as per morth MORTH specification No. 1500, 1700, 2200. Including Cost of material, Labour, HOM complete as per Specification-WALL & Bottom thickness 15Cm(Item No 37.59.2 page no 271)								
	Bottom Raft								
	Naidu Layout								
	Naidu Layout Main Road	Cum	2	79.20	0.90	0.15	21.38		
	Side Walls								
	Naidu Layout Main Road	Cum	4	79.20	0.15	0.60	28.51		
	Basic rate							6670.00	
	Area weightage 6%							400.20	
	Total						**49.90**	**7070.20**	**352775.00**
9	KSRB M2200-6 Providing T.M.T bars Fe 500 steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. MORTH Specification NO.1600&2200Specification No. Pg No.229 Item No.28.8.2								
	For Drain	Cum					49.90		
		kg	Steel assumed 69Kg/Cum of Concrete				3442.82		
		Tonne					**3.44**		
	Basic rate							68233	
	Area weightage 6%							4093.98	
	Total						**3.44**	**72326.98**	**249010.00**
10	Providing and Fixing pre cast covering Slab made out of CC 1:2:4 with 10cm thick and Finishing cutting ,including form work,curing,including cost of alll materials, labour,hire charges of machinery, loading, unloading, lead and lift,transportation etc ,copmplete. (Data Rate)								
	Drain cover slab								
	Naidu Layout								
	Naidu Layout Main Road	Sqm	2	79.20	0.90		142.56		

Sl No	Description of work	Unit	Mesurement				Qty	Rate	Amount
			No.	L	B	D			
	For Flagging Course								
	Naidu layout								
	1st Cross Road	Sqm	2	25.80	0.90		46.44		
	1st Cross Road	Sqm	2	40.20	0.90		72.36		
	Cross Road	Sqm	2	22.70	0.75		34.05		
	1stA Cross Road	Sqm	2	23.60	0.75		35.40		
	2nd Cross Road	Sqm	2	43.60	0.75		65.40		
	3rd Cross Road	Sqm	2	44.90	0.75		67.35		
	3rd A Cross Road	Sqm	2	49.90	0.75		74.85		
	Cross Road	Sqm	2	44.50	0.75		66.75		
	Data rate							2337.00	
	Total						**605.16**	**2337.00**	**1414259.00**
11	Providing and fixing **pre cast solid cement concrete kerb stones** made out of CC 1:2:4 with top and bottom width 114 and 165 mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting including formwork, curing, including cost of materials, labour charges of machinery, loading and unloading, lead and lift, transportation ete.,complete. As per the direction of Engineer incharge. (P.No.27, I.No.5.30 of PW, P&IWTD SR 2018-19)								
	Naidu Layout								
	Naidu Layout Main Road	m	2	77.20			154.40		
	For Flagging Course								
	Naidu layout								
	1st Cross Road	m	2	16.20			32.40		
	1st Cross Road	m	2	42.30			84.60		
	Cross Road	m	2	22.70			45.40		
	1stA Cross Road	m	2	18.20			36.40		
	2nd Cross Road	m	2	28.50			57.00		
	3rd Cross Road	m	2	44.90			89.80		
	3rd A Cross Road	m	2	42.80			85.60		
	Cross Road	m	2	33.90			67.80		
					Sub Total		653.40		
	Number of Kerbs	Nos	653.4/0.45=1452				1452.00		
	Basic rate							408.00	
	Area weightage 6%							24.48	
	Total						**1452.00**	**432.48**	**627961.00**
12	KSRRB 800-1. **Painting two coats** after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications. MORTH Chapter 8 (Page No.180. Iitem no.24.1 of KPWD S.R Bangalore Circle 2018-2019)								
	Naidu Layout								
	Naidu Layout Main Road	Sqm	2	77.20		0.35	54.04		
	For Flagging Course								
	Naidu layout								
	1st Cross Road	Sqm	2	16.20		0.35	11.34		
	1st Cross Road	Sqm	2	42.30		0.35	29.61		
	Cross Road	Sqm	2	22.70		0.35	15.89		

Sl No	Description of work	Unit	Mesurement				Qty	Rate	Amount
			No.	L	B	D			
	1stA Cross Road	Sqm	2	18.20		0.35	12.74		
	2nd Cross Road	Sqm	2	28.50		0.35	19.95		
	3rd Cross Road	Sqm	2	44.90		0.35	31.43		
	3rd A Cross Road	Sqm	2	42.80		0.35	29.96		
	Cross Road	Sqm	2	33.90		0.35	23.73		
	Basic rate							80.00	
	Area weightage 6%							4.80	
	Total						**228.69**	**84.80**	**19393.00**
13	KSRRB M200-24. Dismantling of cement concrete pavement by mechanical means using pneumatic tools, breaking to pieces not exceeding 0.02 cum in volume and stock piling at designated locations and disposal of dismantled materials stacking serviceable and unserviceable materials seperately complete as per specifications. MORTH Specification No. 202(P.No.140- I.No.18.47) & Pg No.136, Item No.17.4,17.1 (5km lead = 57+2*1.28X5)								
	Kuvempu nagar 1st Stage								
	Cross Road	Cum	1	31.00	3.60	0.20	22.32		
	Near Ganesh Temple Cross Road	Cum	1	57.20	2.5	0.20	28.60		
	1st Cross Road	Cum	1	168.00	3.9	0.20	130.70		
	2nd Stage Kuvempu Nagar								
	4th Cross Road	Cum	1	80.30	4.30	0.20	69.06		
	2nd Cross Road	Cum	1	75.40	4.00	0.20	60.32		
	Cross Road	Cum	1	36.20	3.40	0.20	24.62		
	Govt School Road	Cum	1	98.70	4.00	0.20	78.96		
	Basic rate							899.00	
	Area weightage 6%							53.94	
	5Km lead & Lift= 57+(2*1.28*5)							69.80	
	Total						**414.58**	**1022.74**	**424006.00**
14	KSRRB 300-50. Scarifying bituminous course 50mm to 75mm thick along with premix carpet / surface dressing by road roller attached with scarifier without disturbing the base and stacking the debris including cost of all labour charges, HOM of machineries complete as per specifications. MORTH / Chapter 3(P.No.146, I.No.19.56)								
	Naidu Layout								
	Cross Road	Sqm	1	44.6	5.31		236.8		
	Basic rate							39.00	
	Area weightage 6%							2.34	
	Total						**236.8**	**41.34**	**9789.00**
15	KSRRB M300-14. **Excavation for roadwork in all types of soil** by mechanical means including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transportation with a lead of 1.00 km and complete as per specifications MORTH Specificatio MORTH Specification No.301Loading and unloading with 10km lead= (I No-19.14,P No-143)								
	Naidu Layout								
	Cross Road	Cum	1	44.60	5.31	0.1	23.68		

Sl No	Description of work	Unit	Mesurement				Qty	Rate	Amount
			No.	L	B	D			
	Kuvempu nagar 1st Stage								
	Cross Road	Cum	1	31.00	3.60	0.1	11.16		
	Near Ganesh Temple Cross Road	Cum	1	57.20	2.50	0.1	14.30		
	1st Cross Road	Cum	1	168.00	3.89	0.1	65.35		
	2nd Stage Kuvempu Nagar								
	4th Cross Road	Cum	1	80.30	4.30	0.1	34.53		
	2nd Cross Road	Cum	1	75.40	4.00	0.1	30.16		
	Cross Road	Cum	1	36.20	3.40	0.1	12.31		
	Govt School Road	Cum	1	98.70	4.00	0.1	39.48		
	Basic rate							41.00	
	Area weightage 6%							2.46	
	5Km lead= (2*1.28*5)							12.80	
	Total						**230.97**	**56.26**	**12995.00**
16	Cement concrete pavement.Construction of un-reinforced plain cement concrete pavement, using a grade concrete M30 over a prepared base with OPC coarse aggregate @ 0.69cum fine aggregate @ 0.46cum,coarse and fine aggregate confirming to IS:383-2016,with superplastisiser @3lts confirming to IS9103-2008mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the form work as per drawing). Spreading the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints including groove cutting charges, joint filler, separation membrane, selant primer, joint sealant, admixtures as approved, curing compound, finishing to lines and grades, textured with texturing machine,and curing including cost of all materials,labour,hire chargedof machines,all lead and lift charges etc., complete as per specifications. - do with OPC at 360Kg per cum coarse aggregate @ 0.69cum and fine aggregate @ 0.46cum Pg No.176Item No.22.6.1									
	Naidu Layout								
	Cross Road	Cum	1	44.60	5.31	0.15	35.52		
	Kuvempu nagar 1st Stage								
	Cross Road	Cum	1	31.00	3.60	0.15	16.74		
	Near Ganesh Temple Cross Road	Cum	1	57.20	2.50	0.15	21.45		
	1st Cross Road	Cum	1	168.00	3.9	0.15	98.03		
	2nd Stage Kuvempu Nagar								
	4th Cross Road	Cum	1	80.30	4.30	0.15	51.79		
	2nd Cross Road	Cum	1	75.40	4.00	0.15	45.24		
	Cross Road	Cum	1	36.20	3.40	0.15	18.46		
	Govt School Road	Cum	1	98.70	4.00	0.15	59.22		
	Basic rate							4916.00	
	Area weightage 6%							294.96	
	Total						**346.45**	**5210.96**	**1805341.00**

Sl No	Description of work	Unit	Mesurement				Qty	Rate	Amount
			No.	L	B	D			
								Grand Total	8360850.00
								For KRIDL Charges 3+1=4%	334434.00
								DPR Charges (1% of estimated cost)	99000.00
								Project management And Consultancy Charges(1% of estimated cost)	99000.00
								GST Charges (12% of estimated cost)	1003302.00
								Miscellenious and rounding	3414.00
								Total Amount	9900000.00
								RUPEES NINETY NINE LAKHS ONLY	

CERTIFICATE:

1) The work spot has been inspected and found to be necessary
2) The work spot comes under B.B.M.P
3) The provisions made in the estimate are necessary and minimum
4) The estimate is based on C.S.R of 2018-2019,Issue rates and Data Rates.

Assistant Engineer

Assistant Executive Engineer

Executive Engineer

ADMINISTRATIVE APPROVAL

Accorded For Rs. 99.00 Ninety Nine Lakhs only

Head of A/c. P3727, SC-SP/TSP

Div. Ref. No. 63/19-20 Date. 24/10/19

AE

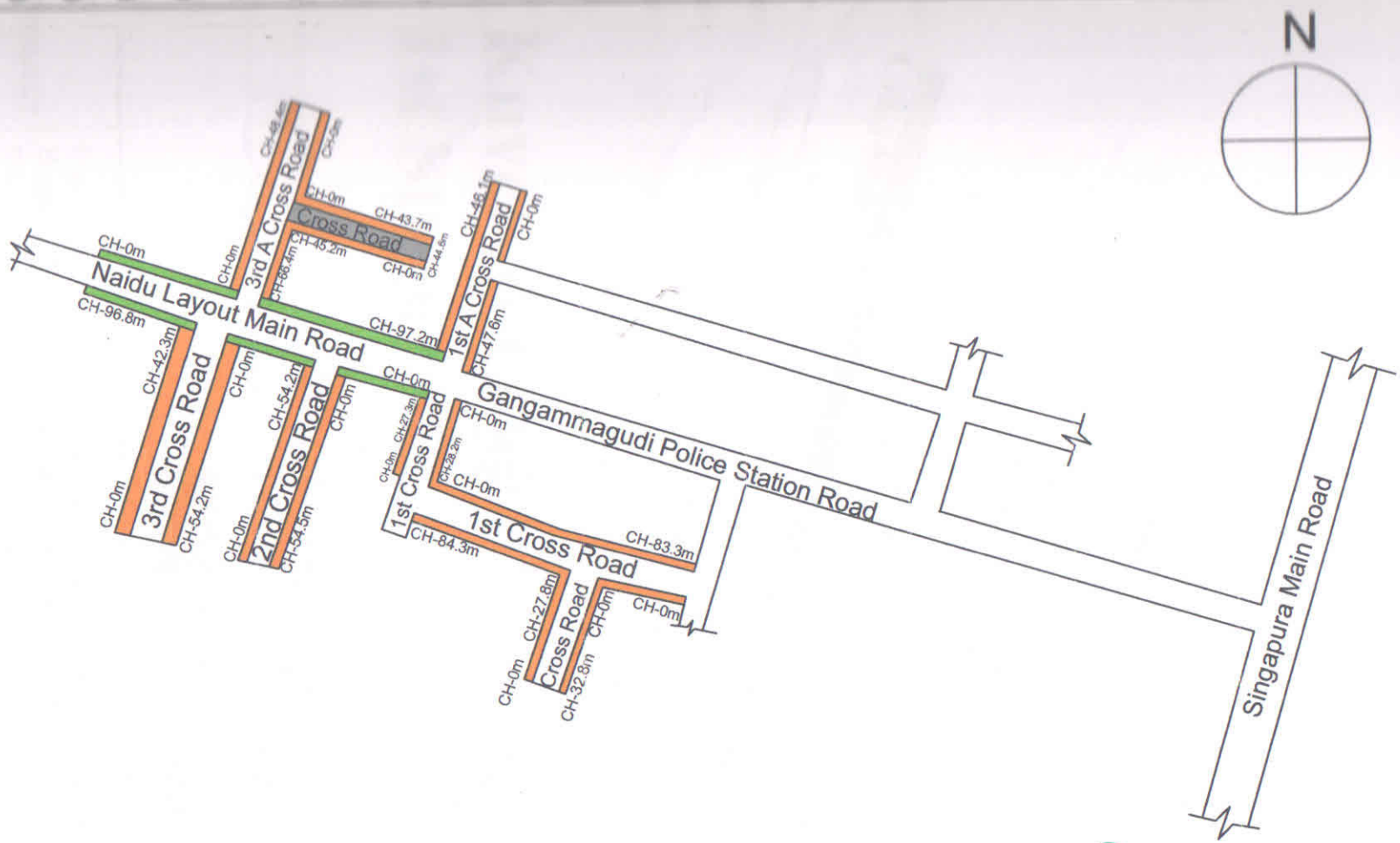
EE(BTP) 24/10

Technical Sanction

Accorded For Rs 99.00 Lakhs only

Head of A/C. P3727

CER NO : 151 Dt. 28.10.2019



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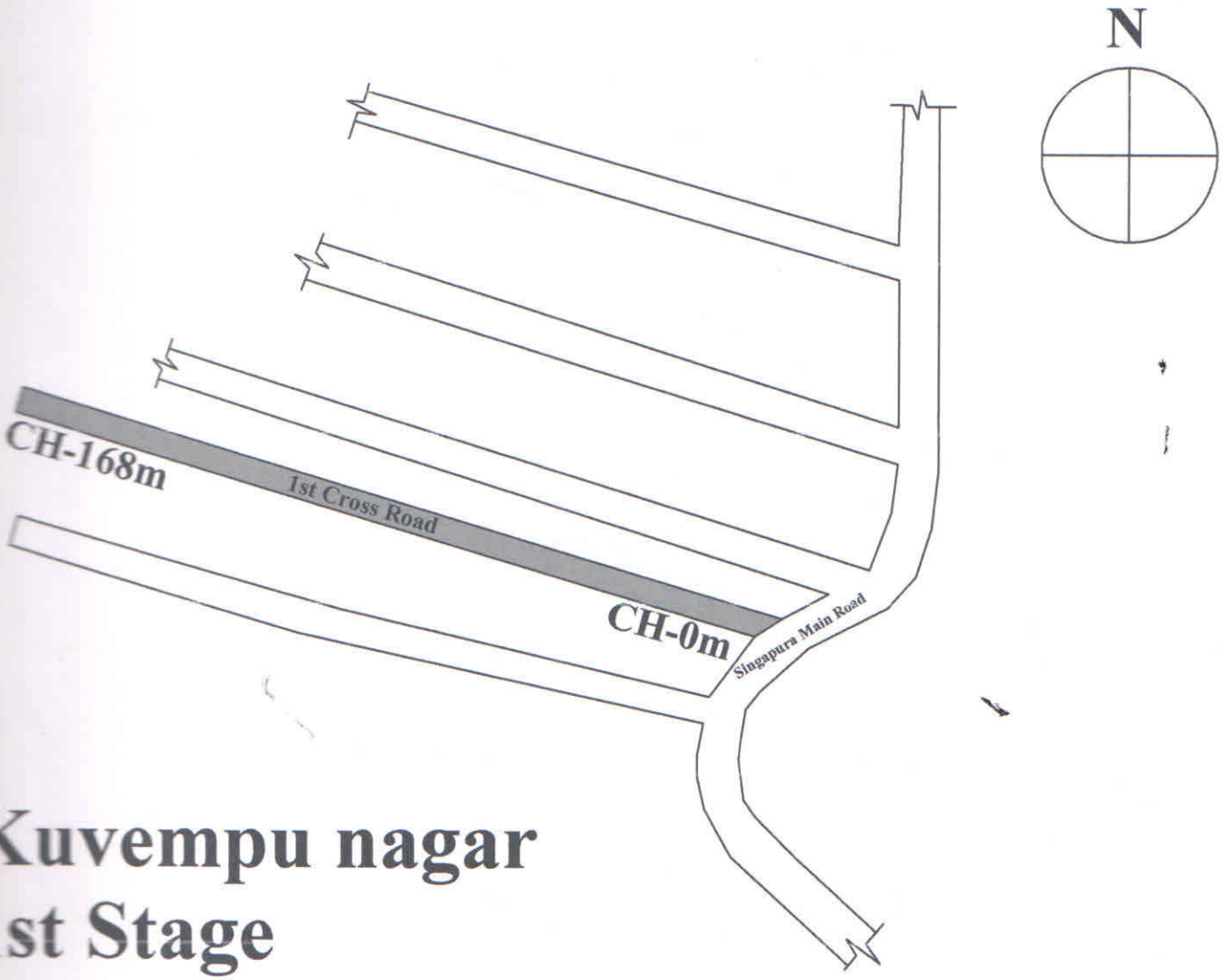
CC Drain

Flagging Course

CC Road

ASSISTANT EXECUTIVE ENGINEER
Vidyaranyapura Sub-Division
Bruhat Bengaluru Mahanagara Palike

PROJECT	Improvements to Roads and Drains to Kuvempu Nagar 1st Stage Mariyamma temple and surrounding area in ward no.11 in Kuvempunagar



Kuvempu nagar
1st Stage

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CC Road

ASSISTANT EXECUTIVE ENGINEER
Vidyaranyapura Sub-Division
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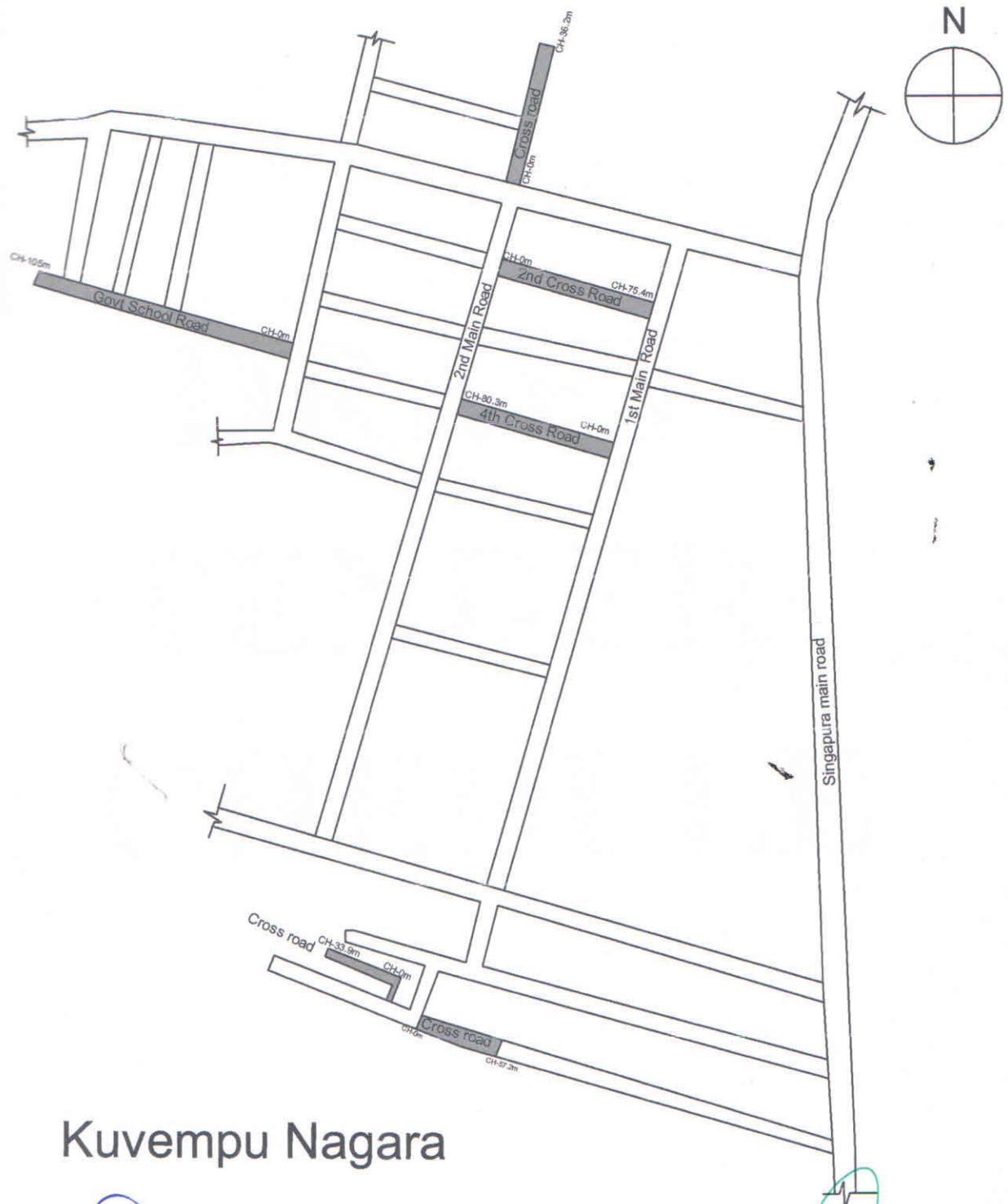

Kuvempu Nagara

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CC Road

PROJECT	Improvements to Roads and Drains to Kuvempu Nagar 1st Stage Mariyamma temple and surrounding area in ward no.11 in Kuvempunagar